

VTS-2 Process Photodiodes

E G & G VACTEC

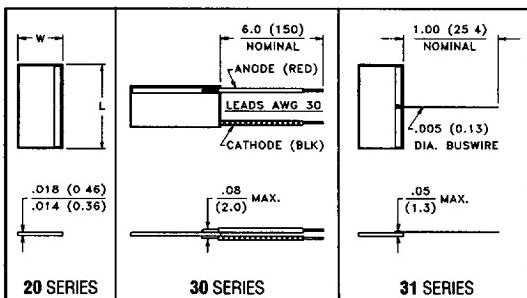
VTS_91, 92, 93

T-41-51

PRODUCT DESCRIPTION

Large area planar silicon photodiodes suitable for use in the photovoltaic mode, but may be used with a small reverse bias. The low capacitance of these units permits fast response time. These cells have moderate shunt resistance which provides low offset gain in transimpedance op-amp circuits. Cells have solderable contacts and are available with or without flexible flying leads. Devices with leads are acrylic (plastic) coated.

PACKAGE DIMENSIONS inch (mm)



ABSOLUTE MAXIMUM RATINGS

Storage Temperature:

- 40°C to 150°C Series 20, 31
- 40°C to 105°C Series 30

Operating Temperature:

- 40°C to 125°C Series 20, 31
- 40°C to 105°C Series 30

CASE 44C
ANODE (ACTIVE) SURFACE SHOWN
CATHODE IS BACKSIDE

	DIMENSIONS	VTS_91	VTS_92	VTS_93
L	.400 (10.16)	.600 (15.2)	.800 (20.32)	
W	.100 (2.54)	.100 (2.54)	.100 (2.54)	
ACTIVE AREA	.026 ² (16.5 ²)	.039 ² (25 ²)	.052 ² (34 ²)	

ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also VTS-2 curves, page 87)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTS_91			VTS_92			VTS_93			UNITS
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Isc	Short Circuit Current	H = 100 fc, 2850 K	100	130		150	200		180	230		µA
TC Isc	Isc Temp. Coefficient	2850 K		.20			.20			.20		% / °C
Isc	Short Circuit Current	100 µW/cm ² , 940 nm	9.0			13.5			19			µA
Voc	Open Circuit Voltage	H = 100 fc, 2850 K	.33			.33			.33			V
TC Voc	Voc Temp. Coefficient	2850 K		-2.0			-2.0			-2.0		mV / °C
Id	Dark Current	H = 0, VR = 100 mV	40	200		40	200		40	200		nA
Rsh	Shunt Resistance	H = 0, V = 10 mV		1.5			1.5			1.5		MΩ
TC Rsh	Rsh Temp. Coefficient	H = 0, V = 10 mV		-11			-11			-11		% / °C
Cj	Junction Capacitance	H = 0, V = 0 V		.30			.45			.60		nF
λrange	Spectral Application Range		400		1100	400		1100	400		1100	nm
λp	Spectral Response - Peak			925			925			925		nm
Sr	Sensitivity	@ Peak		.55			.55			.55		A/W